UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,863	02/20/2002	C. Andrew Neff	324628006US3	2605

25096 7590 08/17/2006	EXAMINER
PERKINS COIE LLP	TRAN, ELLEN C

PERKINS COIE LLP
PATENT-SEA
P.O. BOX 1247
SEATTLE, WA 98111-1247

ART UNIT	PAPER NUMBER
2134	

DATE MAILED: 08/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/081,863	NEFF, C. ANDREW
	Examiner	Art Unit
	Ellen C. Tran	2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>12 June 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-26 and 37-42</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-26 and 37-42</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>January 2006</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to communication: 12 June 2006 with acknowledgement of an

original application filed on 15 February 2002, with acknowledgement that this application is a

continuation in part of applications:

   09/534,836 filed 24 March 2000,

   09/535,927 filed 24 March 2000, and

   09/816,869 filed 24 March 2001. In addition this application claims the benefit of

60/270,182 filed 20 February 2001 and 60/355,857 filed 11 February 2002.

2.   Claims 1-26 and 37-42 are currently pending in this application. Claims 1, 9, 10, 11, 12,

20, 22, 25, 37, and 40 are independent claims. Claims 1, 2, and 8-11, have been amended;

claims 27-36 have been canceled; claims 37-42 are new. Amendment to the claims is accepted.

Response to Arguments

3.   Applicant's arguments with respect to 1-26 and 37-42 have been considered but they are

not persuasive.

   As indicated in the previous rejection mailed 2 December 2005, claims 25 and 26 are

rejected under 35 U.S.C. 101 because they are directed to non-statutory subject matter.

Applicant does not address this matter in the arguments presented and does not amend the

claims. Therefore the 35 U.S.C. 101 rejection remains and is presented below.

   As indicated by applicant on page 10, "It is clear from Fujioka, however, that the ballot

list described ... is generated after the conclusion of the election. In contrast, these claims, as

amended, recite transmitting both confirmation messages "before the election ending time."

Accordingly, applicant submits that the rejection of claims 1-11 is improper, and should be

withdrawn". The Examiner disagrees for multiple reasons, one the independent claims were amended to indicate that the ballot list "before the election ending time". Second Fujioka teaches confirming ballots received before the end of election see col. 1, line 66 through col. 2, line 4; which describes problems of the prior art because the ballot checking is published after completion of the voting; as well as col. 7, lines 40-50, which indicates the election administer, "A" preinforms voters that are allowed to access the authorized voter list for a certain period of time as well as col. 8, lines 16-20, which also indicates that the counter apparatus preannounces the period and place for publishing the ballot list. The Examiner interprets this pre-informing and pre-announcing equivalent to "before the end of the election".

As indicated by applicant beginning on page 10, "Claims 12-22 and 37-42 are directed to the distribution of per-voter voter dictionaries ... Each of these claims recite transmitting a voter dictionary, or a component thereof, to a recipient such as a voting client computer system via a channel that is separate from one used to transmit and encoded voting choice indication". The Examiner disagrees; Fujioka shows multiple channels utilize to distribute ballots, 'per-voter ballot dictionaries', as well as confirmation. See Fujioka col. 4, lines 10-19 which describes anonymous 500, and non-anonymous 400, communication channels, as well as col. 6, lines 21-24 which describes the counted-ballot list sent via a transmitting-receiving part 380 to the voter apparatus; as well as col. 7, lines 32-37 which indicates the administrator sends via its transmitting-receiving part 250. The Examiner interprets the separate 'transmitting receiving parts' as well as communication channels to be separate paths.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5.   Claims 25 and 26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claim is directed to a structure and sequence for data signals, however no equipment or apparatus to form the data signal is claimed.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language

7.   **Claims 12-18, 20, 22, 25, 26, and 37-42** are rejected under 35 U.S.C. 102(e) as being anticipated by Fujioka et al. U.S. Patent No. 6,854,447 (hereinafter '447).

As to independent claim 12, A method in a computing system for confirming receipt of a ballot choice selected by a voter, comprising: sending to a first recipient via a first communications channel a confirmation dictionary for a first voter containing a list of ballot choice confirmation messages ordered in a first order; and" is taught in '447 col. 7, lines 38-44;

"sending to the first recipient via a second communications channel that is distinct from the first communications channel a confirmation dictionary guide for the first voter indicating, for each of a plurality of valid ballot choices" is shown in '447 col. 7, lines45-67;

"a position in the first order containing a ballot choice confirmation message corresponding to the valid ballot choice, such that the first recipient may use the identity of the ballot choice selected by the first voter together with the confirmation dictionary guide to identify in the confirmation dictionary the ballot choice confirmation message corresponding to the ballot choice selected by the voter" is disclosed in '447 col. 8, lines 1-29.

As to dependent claim 13, "wherein the first recipient is the first voter" is taught in '447 col. 7, lines 51-55 (It is assumed that the first voter corresponds to V_i where i=1).

As to dependent claim 14, "further comprising randomly selecting the first order" is shown in '447 col. 7, lines 52-53.

As to dependent claim 15, "further comprising sending to a second recipient via the first communications channel a second confirmation dictionary for a second voter containing a list of ballot choice confirmation messages ordered in a second order the second voter being distinct from the first voter, the second recipient being distinct from the first recipient, the second order being distinct from the first order" is disclosed in '447 col. 7, lines 39-60 (It is assumed that the second voter would be when i=2.).

As to dependent claim 16, "wherein the second recipient is the second voter" is taught in '447 col. 7, lines 39-60.

As to dependent claim 17, "wherein the list of ballot choice confirmation messages contained in the confirmation dictionary includes a ballot choice confirmation message not

corresponding to any valid ballot choice" is shown in '447 col. 7, lines 55-63 (Note if the

ballot message is not a valid ballot choice the equation would not hold).

As to dependent claim 18, "wherein the list of ballot choice confirmation messages

contained in the confirmation dictionary includes a distinguished plurality of ballot choice

confirmation messages, none of the distinguished plurality of ballot choice confirmation

messages corresponding to any valid ballot choice" is shown in '447 col. 7, lines 55-63.

As to independent claim 20, this claim is directed to a computer-readable medium of

the method of claim 12; therefore it is rejected along similar rationale.

As to independent claim 22, this claim is directed to a computing system of the

method of claim 12; therefore it is rejected along similar rationale.

As to dependent claim 24, "wherein the second transmission system sends the

confirmation dictionary guide via a postal mail message" is taught in '447 col. 7, lines 40-51.

As to dependent claim 25, this claim contains substantially similar subject matter as

independent claim 12; therefore it is rejected along similar rationale.

As to dependent claim 26, "wherein the ballot confirmation strings that correspond

to valid ballot choices is a proper subset of the ballot confirmation strings in the sequence"

is shown in '447 col. 7, lines 56-61.

As to independent claim 37, A method in a computing system for confirming receipt

of a ballot choice selected by a voter, comprising: sending to a first recipient via a first

communications channel a confirmation dictionary for a first voter containing a list of

ballot choices in a first order; and" is taught in '447 col. 7, lines 38-44;

"sending to the first recipient via a second communications channel that is distinct

from the first communications channel an indication of a position in the first order

corresponding to the ballot choice selected by the first voter" is shown in '447 col. 7,

lines 45-67;

"such that the first recipient may use the position indication together with the

confirmation dictionary guide to identify the ballot choice selected by the voter" is disclosed

in '447 col. 8, lines 1-29.

As to dependent claim 38, "wherein the position indication is numerical index of a

position in the first order corresponding to the ballot choice selected by the first voter" is

taught in '447 col. 5, lines 12-26.

As to dependent claim 39, "wherein the position indication is a ballot choice

confirmation value that can be transformed by the first recipient who into a numerical

index of a position in the first order corresponding to the ballot choice selected by the first

voter" is shown in '447 col. 6, lines 1-24.

As to independent claim 40, this claim is directed to a computer-readable medium of the

method of claim 37; therefore it is rejected along similar rationale.

As to dependent claims 41 and 42, these claims contain substantially similar subject

matter as claims 38 and 39; therefore they are rejected along similar rationale.

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

        (a) A patent may not be obtained though the invention is not identically disclosed or
described as set forth in section 102 of this title, if the differences between the subject matter
sought to be patented and the prior art are such that the subject matter as a whole would have
been obvious at the time the invention was made to a person having ordinary skill in the art to
which said subject matter pertains. Patentability shall not be negatived by the manner in which
the invention was made.

9.   **Claims 1, 2, 5, 9-11,** are rejected under 35 U.S.C. 103(a) as being unpatentable over

'447.

        As to independent claim 1, "A method in a voter computing system for confirming

receipt of a ballot choice selected by a voter, as part of an election having an ending time,

comprising: receiving a first confirmation message from a first party" is taught in '447

col. 7, lines 32-63;

        "receiving a second confirmation message from a second party that is independent

of the first party, the content of the first and second confirmation message being

combinable to confirm the identity of the ballot choice received for the voter by the vote

collection authority" is shown in '447 col. 8, lines 14-36;

the following is not explicitly taught in '447:

        "before the election ending time, receiving a first confirmation message from a first

party" however '447 shows that the administer preinforms the voters that they can access the

list to be published for a pre-determined period of time in col. 7, lines 39-54. The Examiner

interprets this pre-information an obvious variation of publishing to the voter before the end of

the election;

"before the election ending time, receiving a second confirmation message from a

second party" however '447 teaches as is the case with authorized-voter list the counter pre-

publishes the ballot list in col. 8, lines 16-19. The Examiner interprets this pre-publication to be

equivalent to receiving a confirmation message before the end of the election.

It would have been obvious to one of ordinary skill in the art at the time of the invention

to modify an electronic voting method taught in '447 to include a means to incorporate verify

election ballots cast prior to the end of the election. One of ordinary skill in the art would be

motivated to make such a modification to because as indicated in the Background of the

Invention a voting system that checks the ballots after the completion of all votes cast lack

usability see '447 (col. 1, lines 66 et seq.) "With this method, however, it is necessary for the

voter V_i to confirm the registration of his cipherteXt x_i by checking a list of ballots that is

published after completion of the voting of all voters and to send the key k_i to the counter C.

Hence, the conventional system lacks usability from a voter's point of view".

As to dependent claim 2, "further comprising displaying the content of the first and

second confirmation messages, such that the displayed first confirmation message" is

disclosed in '447 col. 7, lines 55-62;

"and the displayed second confirmation message may be compared by the voter to

expected vote confirmation messages for the ballot choice selected by the voter to

determine whether a ballot choice other than the ballot choice selected by the voter has

been received for the voter by the vote collection authority" is taught in '447 col. 8,

lines 59-67.

As to dependent claim 5, "wherein the combined confirmation message is obtained

using a threshold secret reconstruction technique" is shown in '447 col. 9, lines 21-38.

As to independent claim 9, this claim is directed to a computer-readable medium of the

method of claim 1; therefore it is rejected along similar rationale.

As to independent claim 10, this claim is directed to a computing system of the

method of claim 1; therefore it is rejected along similar rationale.

As to independent claim 11, this claim is directed to a computer memory device of the

method of claim 1; therefore it is rejected along similar rationale.

10.   **Claims 3, 4, 19, and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over

'447 in further view of Challener et al. U.S. Patent No. 6,081,793 (hereinafter '793).

As to dependent claim 3, the following is not taught in '447: "**further comprising:**

combining the content of the first and second confirmation messages to obtain a combined

confirmation message; and displaying the combined confirmation message, such that the

displayed combined confirmation message may be compared by the voter to an expected

combined vote confirmation message for the ballot choice selected by the voter to

determine whether a ballot choice other than the ballot choice selected by the voter has

been received for the voter by the vote collection authority" however '793 teaches "FIG. 9D

depicts the process after the voter has completed the ballot. As is shown in FIG. 9D, the voter

encrypts the completed vote with the public key of the ballot counter "CX." The voter then

encrypts the encrypted completed vote with the private key of the voter. The voter then

concatenates or adds the voter ID to the encrypted information and encrypts the entire package

with the public key of the authenticator "AX." The entire package is sent to the authenticator.

('first confirmation message') The authenticator verifies the vote is from the voter utilizing the

public key of the voter "VX," but the authenticator cannot read the actual completed vote, thus

ensuring privacy of the voting choices, since it is encrypted with the ballot counter's public key

"CX." The authenticator checks to see if this vote is the first vote for this voter and if it has a

valid time stamp. If so, the authenticator stores a copy of the encrypted message that came into

storage (as is shown). The authenticator then wraps up what it is able to decrypt with its private

key "AO" and then appends an "add" message or sign to the message which indicates that the

contents of the ballot should be added to the total vote count. The authenticator then sends this

information to the ballot counter *(second confirmation message)*. Preferably, the authenticator

also sends back a copy of this entire message (that was sent to the ballot counter) to the voter,

wrapped in the voter's public key "VX" to demonstrate to the voter that his or her vote has been

counted *('displaying the combined confirmation messages')*. The voter can compare the vote sent

to the ballot counter to the vote that he or she sent the authenticator, as encrypted" in col. 10,

lines 6-33.

It would have been obvious to one of ordinary skill in the art at the time of the invention

to modify the teachings of '447 an electronic voting method to include a means to verify the vote

counted. One of ordinary skill in the art would have been motivated to perform such a

modification because of the use of the Internet presents an opportunity to make voting more

convenient (see '793 col. 1 lines 43 et seq.) "The rising importance of the internet and other

forms of electronic communication in the United States of America and abroad presents a unique

opportunity to reduce the inconvenience and expense associated with traditional voting systems.

However, there are a considerable number of concerns about security and privacy which will ·

have to be met before the internet and/or other forms of electronic communication becomes

viable as a substitute for or supplement to traditional paper ballot type elections".

As to dependent claim 4, "wherein the combined confirmation message is obtained

using concatenating content from each of the first and second confirmation messages" is

taught in '793 col. 10, lines 6-33.

As to dependent claim 19, "further comprising: receiving a ballot choice

confirmation message corresponding to a ballot choice received for the voter at a ballot

collection entity; and displaying the received ballot choice confirmation message so that the

recipient can compare the displayed ballot choice confirmation message with the ballot

choice confirmation message identified in the confirmation dictionary as corresponding to

the ballot choice selected by the voter" is shown in '793 col. 10, lines 6-33.

As to independent claim 21, this claim contains substantially similar subject matter as

claim 19; therefore it is rejected along similar rationale.

11.   Claims 6 and 7, are rejected under 35 U.S.C. 103(a) as being unpatentable over '447 in

further view of Kilian et al. U.S. Patent No. 5,682,430 (hereinafter '430).

As to dependent claim 6, the following is not taught in '447: "wherein each of the first

and second confirmation messages contains a value, and wherein the combined

confirmation message is obtained by determining the product of the values contained in the

first and second confirmation values" however '430 teaches "A three-step procedure is

followed by each mixing center ... The third step is proving that the centers correctly executed

the first and second steps. The Fiat-Shamir technique as discussed in an article entitled "How to

Prove Yourself: Practical Solutions to identification and signature problems" in Advances in

Cryptology--Crypto '86, Springer-Verlag, 1986, pp. 186 to 199, can be used to make the above

proofs non-interactive ... Also, the invention results in a method which reduces the amount of

communication and computation necessary to generate, transmit and check the proofs by

combining multiple proofs into a single proof" in col. 2, lines 8-29.

It would have been obvious to one of ordinary skill in the art at the time of the invention

to modify the teachings of '447 an electronic voting method to include a means where the

confirmation contains determination of the product of values in the first and second messages.

One of ordinary skill in the art would have been motivated to perform such a modification to

verify the accuracy of votes cast (see '430 col. 1 lines 10 et seq.) "Secure electronic voting is

one of the most important applications of secure multiparty computation. Yet despite extensive

work on this subject, no complete solution has been found in either the theoretical or practical

domains. Even the general solutions to secure multi-party protocols fail to exhibit all of the

desired security properties of elections".

As to dependent claim 7, "wherein each of the first and second confirmation

messages contains a first value and a second value, wherein the combined confirmation

message is obtained by: determining the product of the first values contained in the first

and second confirmation messages; and determining the product of the second values

contained in the first and second confirmation messages" is taught in '430 col. 2, lines 8-29.

12.   **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over '447 in further

view of Ono et al. U.S. Patent No. 6,523,115 (hereinafter '115).

As to dependent claim 8 the following is not taught in '447: "**further comprising**

receiving a third confirmation message from a third party that is independent of the first

and second parties, the content of the third confirmation message independently

confirming the identity of the ballot choice received for the voter by the vote collection

authority" however '115 teaches "The above object may be also achieved by the device

decrypting a ciphertext outputted from an encryption device, ... a first generating unit for

generating third verification data by performing an algorithm corresponding to the first message

digest algorithm for the decrypted plaintext; a first verification unit for verifying the received

first verification data using the third verification data; a second generating unit for generating

fourth verification data by performing an algorithm corresponding to the second message digest

algorithm for a combination of the received first verification data and the received ciphertext; a

second verification unit for verifying the received second verification data using the fourth

verification data; and an outputting unit for outputting results of the first verification unit and the

second verification unit" in col. 5, lines 45-67.

It would have been obvious to one of ordinary skill in the art at the time of the invention

to modify the teachings of '447 an electronic voting method to include a means where the

transmitted data can be confirmed using multiple encryption schemes. One of ordinary skill in

the art would have been motivated to perform such a modification to account for the difficulties

when transmitting encrypted data (see '115 col. 1 lines 10 et seq.) "In the above e-mail

encryption system, a message addressed to a plurality of recipients is encrypted once to generate

a single ciphertext that is broadcast to the recipients. However, should mail recipient 1505

mistakenly use secret key 1524, instead of secret key 1523, to decrypt a message that has been

encrypted with public key 1521, the encrypted message will not be correctly decrypted. In other

cases, errors during transmission can result in a partial loss of the ciphertext or in

mistransmission of its content. Here also, the encrypted message will not be correctly decrypted.

In this way, a mail recipient having two or more secret keys can't know, whether a failure to

correctly decrypt a ciphertext is due to the use of the wrong secret key or an error during

transmission".

13.   **Claims 23** is rejected under 35 U.S.C. 103(a) as being unpatentable over '447 in further

view of Pykälistö U.S. Patent No. 5,970,385 (hereinafter '385).

As to dependent claim 23, the following is not taught in '447: **"wherein the second**

transmission system sends the confirmation dictionary guide via a voice message" however

'385 teaches "The instructions concern the processing of a call participating in a televote and

they contain, for example, instructions about the announcement that will be given to a network

user participating in a televote. In accordance with the IN standards, the voters are given a

single, always similar, voice message. An example for such a message is: `You have phoned to a

televote on the Eurovision Song Contest. Your vote has been registered. Thank you for calling"

in col. 3, lines 56-67.

It would have been obvious to one of ordinary skill in the art at the time of the invention

to modify the teachings of '447 an electronic voting method to include a means where

confirmation information is distributed by voice. One of ordinary skill in the art would have

been motivated to perform such a modification in order to use different available communication

methods to verify vote (see '447 col. 7 lines 40-48) "via an arbitrary communication channel ...

The access to the authorized-voter list 240B can be made, for example, using a predetermined

telephone number".

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as

set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to

expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed

within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened

statutory period will expire on the date the advisory action is mailed, and any extension fee

pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In

no event, however, will the statutory period for reply expire later than SIX MONTHS from the

mailing date of this final action.

14.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Ellen C Tran whose telephone number is

(571) 272-3842. The examiner can normally be reached from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jacques H. Louis-Jacques can be reached on (571) 272-6962. The fax phone number

for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application

Information Retrieval (PAIR) system. Status information for published applications may be

obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ellen Tran
Patent Examiner
Technology Center 2134
14 August 2006